

What Is Claimed Is:

1. A wire rod-forming apparatus, comprising:

a wire rod-forming machine body;

a means for shaping at least a part of a wire rod, fed into the wire rod-forming machine body, into a shaped part of at least one of a ring shape or a coil spring shape;

a cutting member, that swings from a starting point to an end point aligned in a horizontal direction in the wire rod-forming machine body, for cutting the wire rod to separate the shaped part from an unshaped part;

a holding member, that is crossed by the cutting member during swinging at a point that is half-way between the starting point and end point, and

wherein once the wire rod is cut such that the shaped part is separated from the unshaped part, the holding member allows the shaped part to be moved.

2. The apparatus according to claim 1, wherein the wire rod is cut at a prescribed location between respective edges of the cutting member and the holding member.

3. The apparatus according to claim 1, wherein the holding member is a fixed punch connected to the wire rod-forming machine body.

4. The apparatus according to claim 1, wherein the cutting member is constructed as a die-cast that moves with respect to the wire rod-forming machine body and has a punch hole into which a fixed punch can protrude.

5. The apparatus according to claim 1, further comprising:

a shaft-shaped chute which can be moved into a position along an inner side of the wire rod, and

wherein once so moved the shaping of the wire rod is caused by winding the wire rod around the shaft-shaped chute.

6. The apparatus according to claim 5, wherein once the shaped part of the wire rod is cut off from the unshaped part, movement of the cutting member moves the shaped part toward an end side of the shaft-shaped chute.

7. The apparatus according to claim 5, further comprising:

a supply route for compressed air to move the shaped part of the wire rod cut off from the unshaped part to an end side of the shaft-shaped chute.

8. The apparatus according to claim 4, wherein within the die-cast the punch hole can serve as a supply route for compressed air.

9. The apparatus according to claim 1, further comprising:

a shaft-shaped chute having an arc to its form, wherein

a starting portion is oriented in the horizontal direction and

an ending portion is oriented in a lower region;

a rotation table, installed in the lower region of the shaft-shaped chute;

a plurality of shaft-shaped magazines, positioned in the upper region away from the rotation table; and

a rotation table controller, which rotates the rotation table such that a different shaft-shaped magazine is placed in a line extending the shaft-shaped chute when the shaped part of the wire rod passes through the shaft-shaped chute and is collected by the shaft-shaped magazine until such reaches a prescribed quantity, and

wherein, at the same time, any of the shaft-shaped magazines is placed in the line extending the shaft-shaped chute according to a rotation phase of the revolution table.

10. The apparatus according to claim 9 wherein

a tip portion of the shaft-shaped magazines is formed into a pointed shape,

a concave portion is provided on the end face of the end portion of the shaft-shaped chute, and

a push up means is provided on the rotation table, which pushes up the shaft shaped magazines placed on the line extending the shaft shaped chute in the upper direction and plunges the tip portion the shaft shaped magazines into the concave portion of the shaft shaped chute to connect these shaft shaped magazines and the shaft shaped chute.

11. The apparatus according to claim 1 further comprising:

a pressing roller is provided half-way through a supply route of the wire rod, wherein the wire rod is passed through the pressing roller and rolled from a cross sectional round shape into a belt-shaped wire rod, and the ring-shaped wire rod part is formed by winding in a state where the width face of that belt-shaped wire rod is oriented in the direction of the winding axis.

12. The apparatus according to claim 11 wherein a feeding roller is installed in order to feed the belt-shaped wire rod that is passed through and rolled by the pressing roller to the forming means, the belt-shaped wire rod is relaxed in the lower direction between the feeding roller and the pressing roller, and that relaxing portion is passed between a pair of touch sensors, and based on the detection signal of each touch sensor, the rotation number of the pressing roller is regulated such that relaxing of the belt-shaped wire rod is constant between these touch sensors.

13. The apparatus according to claim 1 wherein the ring-shaped wire rod part is a ring obtained by winding once the wire rod and whose two extremities are facing within a prescribed gap a translation tool is installed on the forming means, which renders modifiable the curvature of the ring by translating in the direction of the diameter of the ring, the curvature of the portions near both extremities of the wire rod that constitutes the ring is large so that the ring is closer to a true circle when it is deformed by the compression of the diameter via operation of the translation tool.